

Academy of Program and Project Leadership (APPL) Program Descriptions

ADVANCED PROJECT MANAGEMENT (APM)

Target Audience: Prospective or current Systems-level managers.

Prerequisites: Completion of APPL Project Management (PM) or combined training and work experience equivalent to this training. PMDP Level 2 certification recommended.

Format: 11-day residential program presented by NASA and external experts using lectures, discussions, computer simulated exercises, and case studies.

Program Overview: Provides technical management skills, experience sharing, leadership, personal and team development, coaching and mentoring. Discussion with subject-matter experts on the integration of management roles, responsibilities, principles and concepts; project planning, control and performance measurement; and NASA policy and future directions. Course simulation provides the opportunity to use project leadership skills in planning, executing and controlling Systems-level projects including human factors, risk management, and application of planning tools. Participants who successfully complete the program receive 88 PDUs through PMI R.E.P. Participants who meet the criteria approved by the American Council on Education (ACE) will be eligible for four graduate-level semester hours through ACE.

CONSTRUCTION OF FACILITIES BEST PRACTICES (CBP)

Target Audience: Project Managers or senior project staff with at least two years experience in managing the design or construction of facility projects.

Prerequisites: Completion of the APPL Foundations of Project Management (FPM) and Project Management (PM) or combined training and work experience equivalent to this training is recommended but not required.

Format: 4-day residential program presented by a team of NASA and industry experts using lectures, discussions, hands-on exercises, case studies, and extensive use of shared experiences.

Program Overview: Designed to apply the construction industry's best practices to obtain optimum facility project delivery. Through integrated NASA and industry project teams, projects are analyzed from the pre-authorization to the operations and maintenance phases. The concepts of constructability, value engineering and analysis, risk management, and performance management are applied to the goals of timely, high quality and safe construction projects. Tools and techniques for managing project elements ranging from planning to risk and uncertainty are applied in the NASA environment. Topics include the application of partnering to the project team, the development and improvement of the team, and the identification of attributes and philosophy that contribute to successful project management.

CONSTRUCTION OF FACILITIES MANAGEMENT (CoF)

Target Audience: Project Managers or project staff with the responsibility for aspects of facility construction projects.

Prerequisites: Completion of the APPL Foundations of Project Management (FPM) or combined training and work experience equivalent to this training is recommended but not required.

Format: 5-day residential program presented by a team of NASA experts using lectures, discussions, hands-on exercises, case studies, and extensive use of shared experiences.

Program Overview: Focuses on the provision of capable and reliable facilities, available in-phase with program development needs. Adequate budgeting, the assessment of upgrading existing facility versus new construction, and emphasis of cost-effective initiatives are addressed. Major topics include planning, requirement definition and specification, budgeting, and design. Management of CoF projects utilizing NASA tools and techniques is addressed including project activation. Team building, team interaction, and practitioner influencing skill development are presented. Shared experiences and lessons learned in the NASA environment are stressed to reinforce successful management techniques and facilitate communication within and between Centers.

ENVIRONMENTAL CONSIDERATIONS IN PROGRAM & PROJECT MGMT (ECPPM)

Target Audience: Program and Project Managers, and non-environmental professionals requiring knowledge of environmental compliance and planning.

Prerequisites: Completion of initial Program/Project Management training and familiarity with the Provide Aerospace Products and Capabilities (PAPAC) flowchart and the current version of NPG 7120.5B.

Format: 4-day residential program presented by NASA and guest experts using lectures and group exercises, and joint activities with participants in the Sustainable Design for Facilities (SD-F) and Energy Efficiency and Water Conservation (EEWC) courses, that will be running simultaneously.

Program Overview: Participants are introduced to the concept of sustainability as an approach to managing the ever-increasing environmental requirements and presented with an in-depth look at existing, relevant environmental compliance requirements and issues that may delay or stop the implementation of their program or project. The course covers tools for dealing with the public in controversial environmental situations, and briefly looks at strategies such as product stewardship and clean technologies to better manage and mitigate environmental risks, and their potential cost and schedule impacts. Participants will learn about their Center's environmental professionals and how to contact them. Program and Project Managers will gain an appreciation of new competencies that are needed to meet today's environmental requirements and tomorrow's environmental challenges.

FORUM OF MASTER PROJECT MANAGERS (FORUM)

Target Audience: Center practitioners.

Prerequisites: By invitation only.

Format: 2½-day event held twice annually, once in the Washington, DC area and once at another major city.

Program Overview: Provide top NASA project practitioners the opportunity to share the experiences of veteran, successful managers from NASA and industry. Day one features prominent guest speakers who provide insight on innovative and creative management techniques. Day two features presentations on specific management topics through storytelling on high profile projects, followed by moderated small and large group discussions. Day three focuses on Project Manager presentations from NASA and private sector practitioners, followed by group discussions and a feedback session. Participants who successfully complete the program receive 18 PDUs through PMI R.E.P. An extensive library of information including presentations, readings, and previous event agendas is maintained on the Knowledge Sharing homepage, <http://26.92.16.239/NASA/KSI/Homepage.htm>.

FOUNDATIONS OF PROJECT MANAGEMENT (FPM)

Target Audience: Prospective Project Managers or staff with leadership responsibilities or interests.

Prerequisites: None. PMDP enrollment is recommended.

Format: 4-day Center-based program presented by NASA and external experts using lectures, discussions, and case studies.

Program Overview: Introduces the processes, tools, techniques, knowledge, language, and skills used in managing NASA projects. Participants experience full Life Cycle Management Approach from project planning, through scheduling and control basics, to contract and project baseline management. NASA tools and methodologies, such as Earned Value Management, Work Breakdown Structure, and the 7120.5B process and methodology are introduced and applied. Basic project management concepts in the NASA environment are introduced as well as Program/Project Cost Estimating Techniques, budgeting and interaction with the Federal budgeting process. Project data, information, Configuration Management processes and contract engineering, and the procurement process are presented. Throughout, the tools, technologies, and methodologies are applied to the NASA project development process. Participants who successfully complete the program receive 32 PDUs through PMI R.E.P.

GRANTS WRITING SEMINAR (GWS)

Target Audience: Individuals responsible for the development of competitive grant applications for NASA and other state or Federal organizations such as NIH, NSF, etc.

Prerequisites: Some general knowledge of the competitive grant process is helpful but not mandatory.

Format: 1½-day seminar using a team of experts leading discussion periods, practical exercises and an interactive computer-based workbook to cover all aspects of the grant application process.

Program Overview: Both conceptual and practical aspects of the grant-writing process are addressed. Focus on idea development, writing for reviewers, elements of the review process, and a variety of topics provide a solid conceptual basis of the entire process which can be adapted to any competitive grant program. Each participant is provided The Grant Application Writer's Handbook, that uses an interactive, computer-based approach to enable practical application of the concepts presented. Topics covered include what reviewers look for and how to provide it; tips and strategies for addressing each section of grant applications, competing renewals and resubmissions; analyzing reviewers comments; and identifying potential funding sources, development of fundable ideas, and assessing the competition segments.

INTERNATIONAL PROJECT MANAGEMENT (IPM)

Target Audience: Managers or staff of international projects or those preparing to work on an international team.

Prerequisites: Completion of Project Management (PM), the Foundations of Project Management (FPM), or combined training and work experience equivalent to this training. PMDP Level 1 or Level 2 certification is recommended.

Format: 5-day residential program presented by NASA and external experts using lectures, discussions, hands-on exercises and case studies.

Program Overview: The program has two distinct sections. The first section provides a working knowledge of major issues in international projects including partnerships, cultural challenges, and coaching and mentoring in an international environment. Major topics include understanding across cultures; partners and structures; country specific views; and legal and ethical issues. Shared experience sessions provide access to personnel with expertise in a diverse set of cultures. The second section focuses on management techniques. Through topics such as international negotiations, international project formulation and implementation, and risk management, the Project Manager is provided exposure to critical elements in the successful management of projects involving international elements. Participants who successfully complete the program receive 40 PDUs through PMI R.E.P.

KNOWLEDGE SHARING (KS)

Target Audience: Center practitioners.

Prerequisites: By invitation only.

Format: Knowledge Sharing has four major components: Forum of Master Project Managers (FORUM); Project Management Shared Experience Program (PMSEP); Transfer Wisdom Workshops (TWW); and the ASK Magazine. Details of the FORUM and PMSEP are provided separately under the program title. TWWs are held at individual Centers in two segments - the Project Management Transfer Wisdom Workshops (TWW) are one-day small group discussions; Knowledge Sharing Workshops (KSW) are half-day follow-up events.

Program Overview:

Transfer Wisdom Workshops are 1-day Center-based events using small-group discussions of mini-case studies from the experiences of top NASA managers. An APPL team facilitates the discussions, as practitioners analyze the applicability of the case studies to the challenges of their own Center. Participants who successfully complete the program receive 8 PDUs through PMI R.E.P.

Knowledge Sharing Workshops are ½-day follow-ups based on small-group discussions on mini-case studies. Two top NASA managers from other Centers share lessons learned from their experiences.

ASK Magazine is an on-line and published journal of project management stories featuring book reviews, practitioner interviews, and a column on best practices.

PROGRAM MANAGEMENT (PGM)

Target Audience: Program Managers or Project Managers and senior staff who are planning to be Program Managers.

Prerequisites: Completion of the APPL Project Management (PM) and Advanced Project Management courses or combined training and work experience equivalent to this training. PMDP Level 3 or Level 4 certification is recommended.

Format: 5-day residential program presented by NASA and external experts using lectures, discussions, and case studies.

Program Overview: Provide creative approaches to NASA program management issues and a forum for the interchange of knowledge and experiences. Presents best and emerging practices from NASA and industry; tools and techniques; new skills and concepts; career development; and networking between Centers and with industry. Visionary program management and strategic program development, and strategic planning and goal establishment are major focuses. Budget areas addressed include, Office of Management and Budget interface; the NASA budget process; and business management. Communications issue topics include organizational relationships; Congressional interfaces; and networking across Centers and the private sector. Leadership tools and techniques for coaching, mentoring, organizational development and staffing are presented by industry and NASA experts. Presentations also offer perspectives on personal and career development.

PROJECT MANAGEMENT (PM)

Target Audience: Prospective or current Subsystem-level managers.

Prerequisites: Completion of the Foundations of Project Management (FPM) or combined training and work experience equivalent to this training. PMDP Level 1 or Level 2 certification is recommended.

Format: 11-day residential program presented by NASA and external experts using lectures, discussions, computer-simulated exercises, and case studies.

Program Overview: Introduces the processes, tools, and language used in managing NASA projects. Experience sharing, leadership, and personal development are themes throughout the course. Discussions with subject-matter experts focus on the application of technical, team, and personnel management tools and techniques; NASA best practices; management roles and responsibilities; project planning, control and performance measurement; and NASA policy and future directions. The course highlights critical skills such as acquisition and budgeting, requirements definition, negotiations, and scheduling. Participants who successfully complete the program receive 86 PDUs through PMI R.E.P. Participants who meet the criteria approved by the American Council on Education (ACE) will be eligible for three graduate-level semester hours through ACE.

PROJECT MANAGEMENT SHARED EXPERIENCES PROGRAM (PMSEP)

Target Audience: Leaders in Program and Project Management.

Prerequisites: None. Particularly recommended for experienced managers.

Format: 5-day residential program featuring leaders from NASA, international partners, and industry presenting best practices from major projects through lectures, discussions, and case studies.

Program Overview: Presents state-of-the-art management practices from major NASA and industry projects, develops understanding of key initiatives influencing NASA project management, and explains new and innovative tools and techniques in project management. The inside perspective is provided by NASA leaders from Headquarters and the Centers and the aerospace industry; the outside perspective by leaders in non-aerospace industries. International partner leaders present the global perspective, and the future is discussed by a variety of leaders. Individual days or half-days are devoted to a single major topic, with one day devoted to the NASA leadership viewpoint. Non-aerospace industries, international sessions, and management training sessions are typical topics. A major event is the Enterprise Showcase featuring the best projects from each Enterprise. The final day addresses significant future trends in management practices. Best practices are identified and discussed as well as tools and techniques, new concepts, career development, and networking in the public and private sector.

SYSTEMS MANAGEMENT (SM) *(Formerly Systems Engineering for Managers)*

Target Audience: Prospective or current Subsystem-level managers.

Prerequisites: Completion of the Foundations of Project Management (FPM) or combined training and work experience equivalent to this training. Designed to complement Project Management (PM) and required for PMDP Level 2 certification.

Format: 4-day residential program (5 days if Center-based) presented by NASA and external experts using lectures, discussions, hands-on exercises and case studies. The ratio of team/participant activities is approximately one-to-one and provides the System Engineer or Subsystem Manager the tools and techniques for managing system engineering projects.

Program Overview: Designed to introduce the processes, tools and language used in managing NASA systems engineering projects, discuss their application throughout the systems life cycle, and provide an understanding of the system perspective. Major topics include the Systems Development Life Cycle; requirements development and satisfaction; concept and architecture development; and integration, verification, qualification, and validation. Management aspects addressed include the team approach to engineering systems; opportunity and risk management; and systems management. Participants who successfully complete the program receive 32 PDUs through PMI R.E.P.

TECHNOLOGY TRANSFER AND COMMERCIALIZATION (TTC)

Target Audience: Program and Project Managers, Scientists, and COTRs.

Prerequisites: None. PMDP Level 3 or 4 certification is suggested.

Format: 2-day course presented by NASA, in conjunction with National Technology Transfer Center (NTTC), using lectures and discussions.

Program Overview: Provides a broad overview of NASA's technology transfer (TT) and technology commercialization (TC) processes. NASA and staff involvement in TTC; technology transfer; and the protection of intellectual property rights are discussed. The relationship between the Federal laboratory and industry; the differences between patent and copyright licensing; the ownership rights of NASA R&D parties; and the role of staff in TC issues are explored. Participants are provided data on strategies used in locating NASA's technologies. Processes detailed include the New Technology reporting process; the determination of the market potential of a NASA technology using the NTTC TOP index; and finding a potential commercial marketing partner. The NASA NTTC awards CEUs to participants.

Information: *Registration – contact your Center Training Office. For additional course information contact RGI at 703-820-4900 or rgiinc@erols.com.*